even ethical impact that these needs have and will have on friends, family and society as a whole. This constitutes yet a third area of concern, the burden of which is a personal or public responsibility which falls mostly on those yet in their prime. This is a distinct dimension of the problems of an older population, which could well become the subject matter of gereology.

It seems clear that the aim of gerontology, geriatrics and gereology should be to gain a better understanding of aging beyond the prime and, more particularly, how to extend this middle stage of life for as many years as possible to avoid, postpone or diminish the dependency upon others which so often characterizes the lives of those who are past their prime. The burgeoning of this segment of the population makes the goal a matter of no small importance and no little urgency.

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Psychotherapeutic Drugs in Medical Practice

THE ARTICLE "Psychopharmacology in Medical Practice" by Robert Sack and James Shore in this issue raises several questions that need elaboration: Are psychotherapeutic drugs overused by primary care physicians? Are drugs used in a medical model with a definite diagnosis in mind? How can the risks of treatment be minimized? How can these drugs best be used in mental disorders associated with physical illnesses?

The majority of psychotherapeutic drugs, especially the widely used antianxiety-hypnotic and antidepressant drugs, are most often prescribed by nonpsychiatric physicians. The usual estimate is that 70 percent to 80 percent of these drugs are prescribed by physicians other than psychiatrists. Allegations that these drugs are overprescribed are generally directed toward primary care physicians.

This question is most often raised about antianxiety drugs. Approximately one adult in six receives these drugs during the course of a year. However, only 1 in 16 takes these drugs for more

A Medical Progress article "Psychopharmacology in Medical Practice" appears elsewhere in this issue.

than a month. These figures are rather constant among different countries of Western Europe as well as for the United States.¹ Considering the vast differences in social, political, economic and cultural conditions among the various countries, it seems remarkable that the range of such use is so narrow. One might speculate that a small portion of the population may require antianxiety drugs to handle stress-induced anxiety, but that the majority of stressed persons do not need drugs. About three out of four of those who use these drugs receive "substantial benefit."

The issue ultimately becomes philosophical. If one believes that drug therapy complements problem-solving procedures, be they called psychotherapy or whatever, then limited use of antianxiety drugs makes good sense. If one believes that drugs offer an easy way out, leading to avoidance of problem-solving, then any use is bad. For many physicians, as well as patients, judicious use of antianxiety drugs may be the most expedient and cost-effective way to manage emotional disability.

On the other hand, underuse of antidepressants may be the case. Too few patients are treated with these drugs, largely due to difficulties in making the diagnosis. Depression can easily be missed or the confusing array of somatic symptoms ascribed to a variety of physical illnesses. As anxiety is an inevitable accompaniment of depression, patients may be inappropriately treated with an antianxiety drug.

Another criticism is that antidepressants are often used in too small a dose or for too short a time. Many failures of antidepressants have been linked to insufficient treatment. The hope that monitoring plasma concentrations of tricyclic antidepressants might lead to a better clinical outcome has only been partially realized. One can detect the seriously under-treated patient and remedy that situation, however.²

The second issue raised by Drs. Sack and Shore concerns the difficulties of psychiatric diagnosis. While it is the goal of all medical practice to let diagnosis dictate treatment, psychiatric diagnosis remains primitive. Compared with the vast array of new diagnostic tests and procedures available to other branches of medical practice, psychiatric diagnosis today is not different from that of 30 years ago. Diagnoses are still based fundamentally on soft clinical data. The constellation of clinical

symptoms and signs presented by a patient, as well as their natural history in that patient, constitute the major data for diagnosis. Constant revision of diagnoses, such as in the new Diagnostic and Statistical Manual—Third Edition tends to redefine diagnostic terms and, in an effort to be more precise, tends to put more cases into uncertain diagnostic categories. Considering these difficulties in diagnosis, a conscientious physician will always try to make a working diagnosis on which he can base a rational treatment, but he will be willing to make a psychiatric diagnosis on less stringent criteria than he might demand for a cardiologic diagnosis.

Still another issue raised was avoidance of unnecessary risks of treatment. Even though some psychotherapeutic drugs, such as the benzodiazepines, seem to be remarkably safe, all have the potential for producing unpleasant and sometimes dangerous side effects. In dealing with side effects, to be forewarned is to be truly forearmed. If one knows the major risks from each psychotherapeutic drug, as well as the predisposing factors that increase these risks, many can be avoided. Keeping drug treatment simple by not using exotic combinations of drugs, resisting the temptation to treat a side effect of a drug with another drug, and being willing to see how the patient who has remitted can do without drugs are some reasonable approaches toward minimizing unwanted effects of these agents.

Finally, the article emphasizes the strong interplay between somatic illness and psychiatric disorder, what some of us like to term "somatopsychic disorders," the emotional reactions to physical illness. Several illustrations are given, such as that of a patient with a new myocardial infarct who became excessively excited. Even more common is the almost universal anxiety and depression experienced by such patients. Recognition that both emotional reactions are quite appropriate to the situation, providing prognostic counseling in the most optimistic terms possible, and judiciously using sedative-hypnotic drugs and delaying use of tricyclics will not only help the patient considerably but will not expose him to unnecessary dangers.

Acute agitation and excitement can be associated with a variety of medical problems and may respond very well to low doses of high-potency antipsychotic drugs. Some of these states are associated with severe illnesses monitored in the

intensive care unit, the so-called "intensive care" psychosis. One must take pains to rule out physical causes of the psychosis: abnormal electrolyte values, silent bleeding, vascular accidents—such as a pulmonary embolus or stroke, various causes of hypoxemia and drug reactions. Among the drugs to watch for are the atropine-like agents, lidocaine and theophylline. Alcohol withdrawal also comes especially to mind. If psychosis persists once these causes have been ruled out, treatment is truly needed.

The traditional sedative drugs, such as the benzodiazepines or barbiturates, make matters worse by increasing confusion. Low-potency anti-psychotics, with their attendant strong antiadrenergic and anticholinergic actions, are also often contraindicated. The high-potency antipsychotics have produced the best results.

Other emotional disorders that primary care physicians must often manage are those of a patient with alcohol intoxication or withdrawal. During acute intoxication a high-potency anti-psychotic drug may be preferable to avoid the respiratory depression of large doses of sedative-hypnotics, to which the patient may be cross-tolerant. During alcohol withdrawal, sedative-hypnotic drugs, especially diazepam, are clearly the most useful agents.³

Primary care physicians are often the first to be consulted about a patient who is becoming senile. All such patients require a medical and psychiatric evaluation to make certain that they do not have a remediable cause of their apparent dementia. If they do have Alzheimer disease the best treatment is often symptomatic, with judicious use of antipsychotic drugs for controlling behavior.⁴

The main thrust of the article by Drs. Sack and Shore is the increasing interplay between general medicine and psychiatry. Patients have both bodies and minds, and when one is affected, often so is the other. The more that psychiatrists can recognize the medical problems of *psychiatric* patients, and the more that primary care physicians can recognize the psychiatric problems of *medical* or *surgical* patients, the better it will be for all patients.

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Customer Satisfaction

THERE ARE SOME disturbing parallels between what has happened to the automobile industry in America and what might be happening in medicine. For years the American automobile industry held world leadership in automotive manufacturing, design and engineering innovation, and built high-quality, popular cars. And for years American medicine has led the world in the sophistication and excellence of the health care it renders. But it is clear that our once pacesetting automobile industry has fallen behind. Its leadership is no longer unquestioned and its competitive position in the marketplace has been seriously compromised. Its customers are going elsewhere in disturbing numbers.

The reasons are many. There is little doubt that government intervention with all of its costly and often stifling rules, regulations and paperwork has played a role; it may even have diverted attention and energy from a far more basic problem—that both industry leaders and workers in automobile plants lost sight of the need for efficient automobiles of appropriate design that were constructed with skill and precision. The customers became dissatisfied with the products that were offered and bought cars built elsewhere.

There are significant parallels in what is happening in health care. Clearly, government intervention with all of its costly and often stifling rules, regulations and paperwork is playing a role -and while it is getting much blame, it may also be diverting attention from a far more basic problem. Unfortunately, there are signs that medicine's leaders, as well as the members of the medical profession in general, may be losing sight of the needs felt by their customers—that is, both individual patients and the public. Like the customers of automobile manufacturers, patients are seeking a product that will satisfy their needs as they see them. Too many of them are beginning to look elsewhere than to medicine, as it is customarily practiced today, to answer their needs, particularly their need to feel better. This is happening at a time when the competition for these customers is likely to be increasing, for reasons that need not be described here.

Perhaps there is a lesson for medicine from what has occurred in the automobile industry. The lesson may be that it is time for both the medical profession's leadership and those who provide care to give more attention to what is involved in *customer* satisfaction if they are to retain leadership or even to survive in the increasingly competitive world of health care.

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The Platelet Connection in Arteriosclerotic Disease

COMPLEX INTERACTIONS exist between the vessel wall and the circulating blood. Vessel wall injury of whatever cause sets off a series of reactions which involve the platelets, the extrinsic and intrinsic coagulation process, and alterations in the structure and function of the smooth muscle cells of the vessel wall. As currently reviewed in the two-part specialty conference on thrombosis beginning in this issue these phenomena have been implicated in the primary atherogenic process and in the development of secondary cardiovascular events including myocardial infarction, mural thrombus formation and thromboembolic phenomena.

The platelets have attracted increasing attention as the critical element in arteriosclerotic cardio-vascular disease. The platelets are activated both by vessel wall injury and by thrombin production from the coagulation reaction. The arachidonic pathway in the platelet produces increased amounts of thromboxane A₂ which further enhances the clotting mechanism and stimulates the vessel to constrict. Negative feedback mechanisms within the platelet and thromboxane A₂ inhibition from the platelet and the vessel wall maintain a delicate balance to this dynamic clotting process. The end result of the localized platelet and coagulation reaction depends in large part on the rates

A two-part Specialty Conference "Thrombosis: Its Role and Prevention in Cardiovascular Events" begins elsewhere in this issue.